

Rec'd PCT/PTO 13 FEB 2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

10/533299

Applicant: Arne SKERRA et al.

Title: SOLUBLE TRUNCATED POLYPEPTIDES OF
THE NOGO-A PROTEIN, METHODS FOR THE
PRODUCTION OF SUCH POLYPEPTIDES AND
METHODS FOR IDENTIFYING COMPOUNDS
HAVING DETECTABLE AFFINITY TO A NOGO-
A PROTEIN

Appl. No.: 10/533,299

Filing Date: 4/29/2005

Examiner: Unassigned

Art Unit: Unassigned

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §1.56

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56.

A copy of each non-U.S. patent document and each non-patent document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(b), before the mailing date of the first Office Action on the merits.

RELEVANCE OF EACH DOCUMENT

The relevance of the foreign-language documents is described in the present specification. Documents B1, B2, B6, B7 and B11 are in English. English language abstracts are provided for documents B3 (which corresponds to B1), B4 (which corresponds to B2 and B10), B9 (which corresponds to B5) and B10 (which corresponds to B2 and B4). An English translation of each foreign-language document is not readily available. However, the absence of such translation does not relieve the PTO from its duty to consider the submitted foreign language documents (37 CFR §1.98 and MPEP §609).

Applicants respectfully request that each listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

Respectfully submitted,



By

Reg No. 34,717

Date

Feb 13, 2006

FOLEY & LARDNER LLP

Customer Number: 22428

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Stephen B. Maebius

Attorney for Applicant

Registration No. 35,264

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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT Date Submitted: February 13, 2006 (use as many sheets as necessary)				Complete if Known		
				Application Number		10/533,299
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				First Named Inventor		Arne SKERRA et al.
				Group Art Unit		Unassigned
				Examiner Name		Unassigned
Sheet 1 of 4				Attorney Docket Number		029029-0106

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	B1	5,849,576		Skerra et al.	12/15/1998	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Assignee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
	B2	CA	2 378 871	A1	Scil Proteins GmbH	01/18/2001		
	B3	DE	44 17 598	A1	Max-Planck-Gesellschaft zur Förderung der Wissenschaften eV	12/14/1995		A
	B4	DE	199 32 688	A1	Fiedler, Ulrike, Dr.	01/18/2001		A
	B5	DE	197 42 706	A1	Skerra, Arne, Prof. Dr.	04/15/1999		
	B6	EP	0 396 719	B1	Erziehungsdirektion of the Canton Zurich	07/05/1995		
	B7	WO	90/05191	A1	Erziehungsdirektion of the Canton Zurich	05/17/1990		
	B8	WO	96/23879	A1	Terrapin Technologies, Inc.	08/08/1996		
	B9	WO	99/16873	A1	Skerra, Arne	04/08/1999		A
	B10	WO	01/04144	A2	Fiedler, Ulrike	01/18/2001		A
	B11	WO	01/92655	A1	C-Power AB	12/06/2001		

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.		T ⁶
	B12	BANDTLOW et al., "Oligodendrocytes Arrest Neurite Growth by Contact Inhibition", <u>J. Neurosci.</u> , Dec. 1990, pp. 3837-3848, Vol. 10, No. 12		
	B13	BANDTLOW et al., "The <i>Escherichia coli</i> -derived Fab fragment of the IgM/ κ antibody IN-1 recognizes and neutralizes myelin-associated inhibitors of neurite growth", <u>Eur. J. Biochem.</u> , 1996, pp. 468-475, Vol. 241		
	B14	BESTE et al., "Small antibody-like proteins with prescribed ligand specificities derived from the lipocalin fold", <u>Proc. Natl. Acad. Sci.</u> , March 1999, pp. 1898-1903, Vol. 96, USA		
	B15	BUFFO et al., "Application of Neutralizing Antibodies against NI-35/250 Myelin-Associated Neurite Growth Inhibitory Proteins to the Adult Rat Cerebellum Induces Sprouting of Uninjured Purkinje Cell Axons", <u>J. Neurosci.</u> , March 15, 2000, pp. 2275-2286, Vol. 20, No. 6		

Examiner Signature	Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT Date Submitted: February 13, 2006 <i>(use as many sheets as necessary)</i>		Application Number	10/533,299
		Filing Date	04/29/2005
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Sheet 2 of 4	Attorney Docket Number	029029-0106	

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	B16	CARONI et al., "Antibody against myelin-associated inhibitor of neurite growth neutralizes nonpermissive substrate properties of CNS white matter", <u>Neuron</u> , pp. 85-96, Vol. 1, No. 1 [online], March 1988 [retrieved on 02.06.2005]. Retrieved from the Internet: <URL:http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uid...>	
	B17	CARONI et al., "Two Membrane Protein Fractions from Rat Central Myelin with Inhibitory Properties for Neurite Growth and Fibroblast Spreading", <u>J. Cell Biol.</u> , April 1988, pp. 1281-1288, Vol. 106, The Rockefeller University Press	
	B18	ENGERT et al., Antitumor effects of ricin A chain immunotoxins prepared from intact antibodies and Fab' fragments on solid human Hodgkin's disease tumors in mice, <u>Cancer Research</u> , pp. 2929-2935, Vol. 50, Issue 10 [online], 1990 [retrieved on 09.05.2005]. Retrieved from the Internet: <URL:http://cancerres.aacrjournals.org/cgi/content/abstract/50/10/2929>	
	B19	FIEDLER et al., "Purification and Characterisation of His-Tagged Antibody Fragments", <u>Protocol</u> , Chapter 17, pp. 243-256	
	B20	FIEDLER et al., "Use of Thiophilic Adsorption Chromatography for the One-Step Purification of a Bacterially Produced Antibody F _{ab} Fragment without the Need for an Affinity Tag", <u>Protein Expression and Purification</u> , 1999, pp. 421-427, Vol. 17, Article ID prep.1999.1142	
	B21	FLING et al., Peptide and protein molecular weight determination by electrophoresis using a high-molarity tris buffer system without urea, <u>Anal Biochem</u> , pp. 83-88, Vol. 155, No. 1 [online], May 15 1986 [retrieved on 03.06.2005]. Retrieved from the Internet: <URL:http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=retrieve&db=pubmed&list_uids...>	A
	B22	GILL et al., Calculation of protein extinction coefficients from amino acid sequence data, <u>Anal. Biochem.</u> , pp. 319-26, Vol. 182, No. 2 [online] Nov. 1 1989 [retrieved on 02.06.2005]. Retrieved from the Internet: <URL:http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uid...>	A
	B23	HATTEN, M., "Neuronal Regulation of Astroglial Morphology and Proliferation in Vitro", <u>J. Cell Bio.</u> , Feb. 1985, pp. 384-396, Vol. 100, The Rockefeller University Press	
	B24	HORNER et al., Regenerating the damaged central nervous system, <u>Nature</u> , pp. 963-70, Vol. 407, No. 6807 [online] Oct. 26, 2000 [retrieved on 30.05.2005]. Retrieved from the Internet: <URL:http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A...>	A
	B25	HRYNIEWICZ-JANKOWSKA et al., "Ankyrins, multifunctional proteins involved in many cellular pathways", <u>Folia Histochemica Et Cytobiologica</u> , 2002, pp. 239-249, Vol. 40, No. 3	
	B26	HUBER et al., "Nogo-A, a potent inhibitor of neurite outgrowth and regeneration", <u>Biol. Chem.</u> , pp. 407-19, Vol. 381, Nos. 5-6 [online] May-June 2000 [retrieved on 30.05.2005]. Retrieved from the Internet: <URL:http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Ci...>	
	B27	KÖNIG et al., "Use of an albumin-binding domain for the selective immobilization of recombinant capture antibody fragments on ELISA plates", <u>J. Immun. Methods</u> , 1998, pp. 73-83, Vol. 218	
	B28	LINNINGTON et al., "A novel myelin-associated glycoprotein defined by a mouse monoclonal antibody", <u>J. Neuroimmunol.</u> , pp. 387-96, Vol. 6, No. 6 [online] Sept.-Oct. 1984 [retrieved on 09.05.2005]. Retrieved from the Internet: <URL:http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=A...>	A

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	B29	SCHIWECK et al., "Fermenter Production of an Artificial Fab Fragment, Rationally Designed for the Antigen Cystatin, and Its Optimized Crystallization Through Constant Domain Shuffling", <u>Proteins: Structure, Function, and Genetics</u> , 1995, pp. 561-565, Vol. 23	
	B30	SCHLAPSCHY et al., "Purification and Analysis of <i>Strep</i> -Tagged Antibody-Fragments", <u>Protocol</u> , Chapter 22, pp. 292-306	
	B31	SCHLEHUBER et al., "A Novel Type of Receptor Protein, Based on the Lipocalin Scaffold, with Specificity for Digoxigenin", <u>J. Mol. Biol.</u> , 2000, pp. 1105-1120, Vol. 297	
	B32	SCHMIDT et al., "Molecular Interaction Between the <i>Strep</i> -tag Affinity Peptide and its Cognate Target, Streptavidin", <u>J. Mol. Biol.</u> , 1996, pp. 753-766, Vol. 255	
	B33	SCHNELL et al., "Axonal regeneration in the rat spinal cord produced by an antibody against myelin-associated neurite growth inhibitors", <u>Nature</u> , pp. 269-72, Vol. 343, No. 6255 [online] Jan. 1990 [retrieved on 26.04.2005]. Retrieved from the Internet: <URL:http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Ci...>	
	B34	SKERRA et al., "Filter screening of antibody Fab fragments secreted from individual bacterial colonies: specific detection of antigen binding with a two-membrane system", <u>Anal. Biochem.</u> , pp. 151-5, Vol. 196, No. 1 [online] July 1991 [retrieved on 02.06.2005]. Retrieved from the Internet: <URL:http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uid...>	A
	B35	SKERRA et al., "Use of the <i>Strep</i> -Tag and Streptavidin for Detection and Purification of Recombinant Proteins", <u>Protein Eng.</u> , 1993, pp. 271-304, Vol. 6	
	B36	SKERRA, A., "A general vector, pASK84, for cloning, bacterial production, and single-step purification of antibody F _{ab} fragments", <u>Gene</u> , pp. 79-84, Vol. 141, Issue 1 [online] April 8, 1994 [retrieved on 07.06.2005]. Retrieved from the Internet: <URL:http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6T39-47P8GM2-CS...>	A
	B37	SKERRA, A., "Engineered protein scaffolds for molecular recognition", <u>J. Mole. Recognit.</u> , 2000, pp. 167-187, Vol. 13	
	B38	SKERRA, A., "Use of the tetracycline promoter for the tightly regulated production of a murine antibody fragment in <i>Escherichia coli</i> ", <u>Gene</u> , 1994, pp. 131-135, Vol. 151	
	B39	SPILLMANN et al., "Identification and Characterization of a Bovine Neurite Growth Inhibitor (bNI-220)", <u>J. Biol. Chem.</u> , July 24 1998, pp. 19283-19293, Vol. 273, No. 30, USA	
	B40	SUPPLEMENTARY MATERIAL: "Materials and Methods", 2 pages; Figure 2, 2 pages; Inhibitor of neurite outgrowth in humans, <u>Nature</u> , January 2000, pp. 383-384, Vol. 403	
	B41	TATAGIBA et al., "Regeneration of Auditory Nerve Following Complete Sectioning and Intrathecal Application of the IN-1 Antibody", <u>Acta Neurochir</u> (Wien), 2002, pp. 181-187, Vol. 144, Austria	

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	B42	VOGT et al., Bacterially produced apolipoprotein D binds progesterone and arachidonic acid, but not bilirubin or E-3M2H, J. Mol. Recognit., 2001, pp. 79-86, Vol. 14	
	B43	VOSS et al., Mutagenesis of a flexible loop in streptavidin leads to higher affinity for the <i>Strep</i> -tag II peptide and improved performance in recombinant protein purification, Protein Eng., 1997, pp. 975-982, Vol. 10, No. 8	
	B44	YANISCH-PERRON et al., Improved M13 phage cloning vectors and host strains: nucleotide sequences of the M13mp18 and pUC19 vectors, Gene, pp. 103-19, Vol. 33, No. 1 [online] 1985 [retrieved on 03.06.2005]. Retrieved from the Internet: <URL:http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uid...>	A
	B45	Z'GRAGGEN et al., Functional Recovery and Enhanced Corticofugal Plasticity after Unilateral Pyramidal Tract Lesion and Blockade of Myelin-Associated Neurite Growth Inhibitors in Adult Rats, J. Neurosci., June 15, 1998, pp. 4744-4757, Vol. 18, No. 12	

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